

Listing of Claims:

1. (Previously Presented) An eyesafe, Q-switched, laser system having a number of diodes for optical pumping, said system comprising:
a resonant pumped erbium laser having a storage lifetime of at least 4msec thereby minimizing said number of diodes needed to pump said laser; and
an energy/pulse between approximately 250mJ and approximately 300mJ.
2. (Previously Presented) The system in accordance with claim 1, further comprising dilute concentrations of unsensitized Erbium in an approximate range of between 1% and 2% of active ion, said Erbium having the storage lifetime of approximately 10msec for a 1.5 micron transition.
3. (Previously Presented) The system in accordance with claim 2 further comprising a crystalline host for the Erbium.
4. (Canceled)
5. (Previously Presented) The system in accordance with claim 1, wherein the laser has a wavelength of approximately 1.5 microns.
6. (Previously Presented) The system in accordance with claim 1 wherein said number of diodes pump approximately 30 to 60W at 1.5 microns wavelength for approximately 10msec.
- 7-17. (Canceled)
18. (Previously Presented) A high-energy, eye-safe Q-switched laser comprising:
a Resonant Pumped Erbium laser with dilute concentrations of unsensitized Erbium wherein the unsensitized Erbium concentration is between about 1% about 2%.
19. (Canceled).

20. (Previously Presented) The laser of claim 18 further comprising an Erbium:Yttrium Lithium Fluoride oscillator pumped by the Erbium laser.

21. (Previously Presented) The laser of claim 18 further comprising an energy/pulse between approximately 250 and 300mJ.

22. (Previously Presented) The laser of claim 18 further comprising a plurality of diodes pumping approximately 30 to 60W at about 1.5 microns wavelength, for approximately 10 ms.

23. (Previously Presented) The laser of claim 18 wherein the first excited state of Erbium is pumped at approximately 1.5 microns.